

## Patent Abstracts of Japan

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TITLE

AMORPHOUS SILICON SOLAR BATTERY

ABSTRACT :

PURPOSE: To improve the heat resistance by using a polymer film having heat resistance and transparency at the incident light window side of an amorphous silicon solar battery, thereby enabling to produce it in a rollup type.

CONSTITUTION: A substrate of a polymer film having transparency, flexibility and 170°C of glass transition point is used for an incident light window side of an outer layer, and a transparent conductive film and an electromotive force generating layer made of a hydrogenated or fluorized amorphous silicon layer are provided between the substrate and a back surface electrode. A polymer film having 170°C or higher of glass transition point Tg is made of polyether sulfone, and the film is manufactured by an extruding method of a casting method. To obtain an amorphous silicon of high quality and high photoelectric conversion efficiency, a substrate heated at 150°C or higher is desired. Tg of standard of the substrate such as polyether sulfone has 223 and 150°C or higher of heat resistance.

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